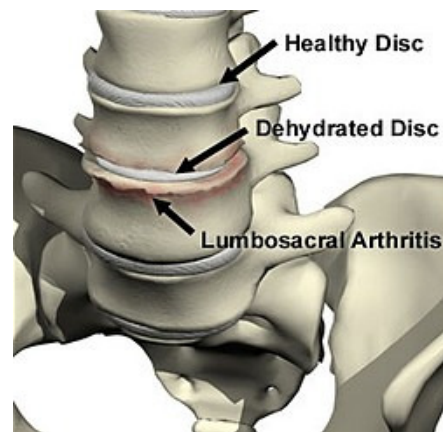


# Osteoarthritis

*This article will help you to understand the very common condition known as osteoarthritis with tips to help prevent and manage the potentially disabling effects.*

## **What is it?**

*Osteoarthritis (OS-tee-oh-are-THRY-tis) (OA) is one of the oldest and most common forms of arthritis. Known as the wear-and-tear kind of arthritis, OA is a chronic condition characterized by the breakdown of the joint's cartilage. Cartilage is the part of the joint that cushions the ends of the bones and allows easy movement of joints. The breakdown of cartilage causes the bones to rub against each other, causing stiffness, pain and loss of movement in the joint.*



*Osteoarthritis is known by many different names, including degenerative joint disease, ostoarthrosis, hypertrophic arthritis and degenerative arthritis. Your doctor might choose to use one of these terms to better describe what is happening in your body, but for our purposes, we will refer to all of these as osteoarthritis.*

*It is thought that osteoarthritis dates back to ancient humans. Evidence of osteoarthritis has been found in ice-aged skeletons. Today, an estimated 27 million Americans live with OA. Despite the longevity and frequency of the disease, the cause is still not completely known. In fact, many different factors may play a role in whether or not you get OA, including age, obesity, injury or overuse and genetics. Your OA could be caused by any one or by a combination of any of these factors.*

## **There are several stages of osteoarthritis:**

- *Cartilage loses elasticity and is more easily damaged by injury or use*
- *Wear of cartilage causes changes to underlying bone. The bone thickens and cysts may occur under the cartilage. Bony growths, called spurs or osteophytes develop near the end of the bone at the effected joint.*
- *Bits of bone or cartilage float loosely in the joint space.*
- *The joint lining, or the synovium, becomes inflamed due to cartilage breakdown causing cytokines (inflammation proteins) and enzymes that damage cartilage further.*

***Changes in the cartilage and bones of the joint can lead to pain, stiffness and use limitations. Deterioration of cartilage can:***

- *Affect the shape and makeup of the joint so it doesn't function smoothly. This can mean that you limp when you walk or have trouble going up and down stairs.*
- *Cause fragments of bone and cartilage to float in joint fluid causing irritation and pain.*
- *Cause bony spurs, called osteophytes, to develop near the ends of bones*
- *Mean the joint fluid doesn't have enough hyaluronan, which affects the joint's ability to absorb shock.*

***What causes it?***

*While there isn't any single known cause of osteoarthritis (OA), there are several risk factors that should be considered. Knowing and controlling these risk factors can help you minimize your risk or even help you prevent getting OA altogether. Keep in mind that having risk factors for OA doesn't mean you will definitely get it. No single risk factor is enough to cause OA; it is more likely that a combination of risk factors works together to cause the disease.*

*There are two distinct types of osteoarthritis, primary and secondary. Primary osteoarthritis is the type associated with aging and is thought of as wear and tear osteoarthritis. The older you are, the more likely it is that you will have some degree of primary arthritis. In fact, if we live long enough, most of us will experience primary osteoarthritis.*

*In contrast, when someone is diagnosed with secondary osteoarthritis, it is because there is an apparent cause for the disease. In other words, the breakdown of cartilage can be associated to injury, heredity, obesity or something else.*

***Listed below are the risk factors for osteoarthritis.***

***Age.*** *Incidences of OA increase as you age. Since wear and tear does play a part in the development of OA, the older you are, the more you have used your joints. Although age is an important risk factor, it doesn't mean that OA is inevitable.*

***Obesity.*** *Obesity is a nationwide epidemic and you hear about the danger from it every day on the news. Increased body weight is a serious factor in the development of OA, particularly in your knees, which carry the brunt of your weight day in and day out. For every pound you gain, you add 3 pounds of*

pressure on your knees and six times the pressure on your hips. Since weight gain gradually increases the stress on joints, the weight you gain the decade before you have OA symptoms, particularly in middle age, plays a big role in determining if you will have OA.

**Injury or Overuse.** Athletes and people who have jobs that require doing repetitive motion, such as landscaping, typing or machine operating, have a higher risk of developing OA due to injury and increase stress on certain joints. OA also develops in later years in joints where bones have been fractured or surgery has occurred. It is important for athletes to learn to take precautions to avoid injury and for people in repetitive jobs to modify their movements to lessen this stress. Note: Avoiding repetitive movement shouldn't be interpreted as not exercising. Regular moderate exercise strengthens the joint causing it to be more stable, thereby, reducing the risk of OA in that joint.

**Genetics or Heredity.** It is becoming more and more clear that genetics plays a role in the development of OA, particularly in the hands. This shows itself in many ways. Inherited abnormalities of the bones that affect the shape or stability of the joints can lead to OA. It is also more common in joints that don't fit together smoothly. For example, a bowlegged person is more likely to develop OA. Increased laxity or being double jointed also increases the risk of OA. Recently, researchers have been looking at a defect in the gene responsible for manufacturing cartilage as a risk factor. Just because you have one of these inherited traits, doesn't mean that you are going to develop OA. It just means that your doctor should check you more closely and more frequently for signs and symptoms of the disease.

**Muscle Weakness.** Studies of the knee muscles not only show that weakness of the muscles surrounding the knee can lead to OA, but that strengthening exercises for thigh muscles are important in reducing the risk.

**Other Diseases and Types of Arthritis.** People with rheumatoid arthritis tend to have a greater chance of developing OA. Also, hemochromatosis, or having too much iron, can damage cartilage to the point of chronic deterioration. Acromegaly, or excess growth hormone, also has adverse affects on the bones and joints and can lead to OA.

### **What are the effects?**

While each person is an individual and may be affected differently by osteoarthritis, we will discuss the general symptoms you want to look for if you suspect you have arthritis. Remember, it is crucial that you go to your doctor for a

*diagnosis before you treat your OA. Several other conditions seem similar to OA, but are treated in different ways.*

*While many people think of OA as the inevitable result of aging and wear on the joints, this isn't true. The knees, hips, fingers, neck and lower back are most commonly affected by OA, while the knuckles, wrists elbows, shoulders and ankles are rarely affected except in usually cases of overuse or injury. □If OA was caused by simple wear and tear, you would expect these body parts to be affected more often, notes David S. Pisetsky, MD, in his book *The Duke University Medical Center Book of Arthritis*.*

*Most often, OA develops gradually. It may start as soreness or stiffness that seems more a nuisance than a medical concern. Pain may be moderate, intermittent and not interfere with your day-to-day existence. Some people □s OA will never progress past this early stage. Others will have their OA progress to a point where it interferes with daily activities and pain and stiffness make it difficult to walk, climb stairs or sleep. Rarely, a person with OA will experience sudden signs of inflammation such as redness, pain and swelling, known as inflammatory or erosive osteoarthritis.*

### ***The most common signs and symptoms of osteoarthritis are:***

- *Joint soreness after periods of overuse or inactivity.*
- *Stiffness after periods of rest that goes away quickly when activity resumes.*
- *Morning stiffness, which usually lasts no more than 30 minutes.*
- *Pain caused by the weakening of muscles surrounding the joint due to inactivity.*
- *Joint pain is usually less in the morning and worse in the evening after a day □s activity.*
- *Deterioration of coordination, posture and walking due to pain and stiffness.*

*Osteoarthritis most commonly occurs in the weight-bearing joints of the hips, knees and lower back. It also affects the neck, small finger joints, the base of the thumb and the big toe. OA rarely affects other joints except when injury or stress is involved.*

*It is important that you take an active role in the treatment of your OA and in*

*prevention of additional joint damage. There are even steps you can take to lower your risk for developing OA at all.*

*The most important thing you can do if you suspect you have any form of arthritis is to get a proper diagnosis and begin early, aggressive treatment. There are several other conditions that are similar to OA, including rheumatoid arthritis, that have different treatment plans. It is important that you are being treated properly for your arthritis. You should also know that treatment may change as the disease progresses or improves.*

### ***How is it diagnosed?***

*Early diagnosis and treatment is the key to controlling osteoarthritis. Your doctor will take a medical history and perform a physical exam to assess your disease activity. He or she may use X-rays to confirm or strengthen a diagnosis, although most people over 60 reflect OA on X-ray while only 1/3 have actual symptoms.*

### ***Is there a cure?***

*While there is no known cure for reversing osteoarthritis, quite a bit can be done to manage the condition and even prevent further damage.*

*OA is a progressive condition, which simply means that it can continue to get worse. Conservative therapy, however, like physical therapy and chiropractic care, are very effective at slowing or even stopping the progression.*

*Your joints are supported by soft-tissues, primarily muscles, tendons, and ligaments. Soft-tissues can almost always be affected positively through conservative therapy, regardless of your age, degree of OA, or general state of health. By improving your flexibility and strength, the joint will function better, and therefore you will function better.*

*Physical therapy joint mobilizations and gentle chiropractic adjustments can help to restore normal joint movement patterns, decrease joint pain, and improve circulation.*

*Together, physical therapy and chiropractic can help reduce your symptoms of osteoarthritis and get you back on your feet again!*

### ***Our Approach***

*Our approach is fairly straightforward. We will do whatever it takes to get you feeling better.*

*Most patients with osteoarthritis in our office receive both passive and active therapy. Initially passive therapy such as heat and ice, ultrasound, electric stimulation, and massage help to decrease pain and inflammation and improve circulation to start the healing process.*

*As pain decreases, gentle stretching and joint mobilizations are added to the program. If tolerated well, appropriate active can begin in a gym including stationary bicycle, mat exercises, and general strengthening as appropriate.*

*If you have experienced any of the above-mentioned conditions or symptoms, you may be a candidate for conservative therapy at our office. Give us a call to find out today. (908) 753-0144.*